RCS: DD-A&T(Q&A)823-335

Expeditionary Sea Base (ESB_)

As of FY 2021 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)

Program Information

Program Name
Expeditionary Sea Base (ESB_)

DoD Component
Navy

Responsible Office

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References

SAR Baseline (Production Estimate)

Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) Approved Acquisition Program Baseline (APB) dated February 05, 2019

Approved APB

Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) Approved Acquisition Program Baseline (APB) dated February 5, 2019

Mission and Description

The Expeditionary Transfer Dock (ESD) program (formerly Mobile Landing Platform (MLP)) originally supported procurement of three ships for the three Maritime Prepositioning Squadrons (MPSRONS). Each ESD provides three Landing Craft Air Cushion (LCAC) lanes, Skin-to-Skin ramp and fenders, and 25K square feet of raised vehicle deck. The Sea Base Surface Interface Hub enables transfer of personnel and equipment from Maritime Prepositioning Force (MPF(F)) Large, Medium-Speed Roll-On/Roll-Off (LMSR) and Expeditionary Fast Transport (EPF) to shore via LCACs.

The Expeditionary Sea Base (ESB) program (formerly MLP Afloat Forward Staging Base (AFSB)) mission is to support Aviation-Mine Counter Measure (AMCM) and Special Operations Force (SOF) operations. The ESB class provides four core components. These include a flight deck with four Level 1/Class 2 Op Spots, berthing to accommodate for 250 military personnel, a mission deck with ~65K square feet of storage as well as the ability to support launch and recovery of boats and sleds, and command and control in the form of Command, Control, Communications, Computers and Intelligence (C4I) spaces for mission planning and execution. The ESB is hybrid Civilian Mariner/Military Detachment (CIVMAR/MILDET) crew operated as either a United States Naval Ship (USNS) for Non International Armed Conflicts (NIAC) or converted to United States Ship (USS) for International Armed Conflicts (IAC).

Executive Summary

Program Highlights Since Last Report

The ESB Program completed another successful year of achieving multiple significant milestones. The ESD/ESB class has successfully delivered 5 ships since ESD 1 delivery in May 2013. Of the 5 ships delivered, 3 are currently operating as Fleet assets (ESD 1 / 2, ESB 3).

PB 2021 removes funding in FY 2022 and FY 2023 associated with ESB 8 reducing the ship profile to 7.

ESB 4 is currently in Voyage Repair Availability (VRAV) estimated to complete in March 2020. ESB 5 delivered on November 15, 2019, shifting from the original delivery date of March 2019 due to damage from the flooding on NASSCO graving dock on July 11, 2018.

ESB 6 and ESB 7 Detailed Design and Construction contract awarded to NASSCO in San Diego, California on August 23, 2019. Start of Construction for ESB 6 planned for June 2020 and Start of Construction for ESB 7 planned for June 2021.

There are no significant software-related issues with this program at this time.

History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation	
Date	**Significant Development Description**
June 1998	Mission Area Analysis of the sea-basing concept for the Maritime Prepositioning Force (MPF) of 2010 issued
February 2000	MPF for 21st Century (MPF Future (MPF(F)) Mission Need Statement approved
January 2003	MPF(F) Analysis of Alternatives Plan approved
April 2004	MPF(F) Analysis of Alternatives Final Summary Report approved
June 2005	Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RDA)) Congressional letter describing MPF(F) issued
March 2006	ADM Approval of MPF(F) program to enter Technology Development phase
August 2006	Joint Staff J-2 memo Intelligence Certification of MPF(F) CDD
September 2006	N09J legal opinion stating that Mobile Landing Platform (MLP) may be lawfully designated naval auxiliary
March 2008	JROC Approval of MPF(F) Increment 1 CDD
July 2008	Approved June 5, 2008 DAB for incremental acquisition of MPF(F) platforms, focusing on T-AKE and MLP. Milestone A
February 2009	MLP System Design Part I awarded to National Steel and Shipbuilding Company(NASSCO)
June 2010	Reviewed and approved MPF(F) KPP for Mission Payload
August 2010	MPF(F) Increment One CDD Addendum & Enclosure
May 2011	Designation of MLP as ACAT II.
May 2011	Approval to Award Detail Design and Construction (DD&C) for MLP 1 & 2, Long Lead Time Material (LLTM) MLP 3 Shipbuilding and Conversion, Navy (SCN) Letter
May 2011	Milestone B approval by Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) that authorized engineering and manufacturing development and detail design of the MLP class ship
October 2012	MLP CDD Aviation Interface
December 2012	ASN(RDA) approved Contract Design of MLP Afloat Forward Staging Base (AFSB) and to incorporate design changes to base MLP 3 ship to enable future capabilities elements
December 2012	ASN(RDA) approved award of AFSB Contract Design
March 2013	MLP AFSB Variant Appendix to Increment One CDD Addendum
March 2013	Approved MLP CDD change 2 - AFSB
April 2013	ASN(RDA) approved award of AFSB Advanced Design to include Special Operations Forces (SOF) capabilities
May 2013	Delivery of MLP 1
May 2013	ASN(RDA) approved Abbreviated Acquisition Plan dated May 1, 2013
May 2013	ASN(RDA) approved DD&C of MLP 3 AFSB.
June 2013	MLP AFSB Aviation Requirements Document (ARD)
June 2013	ASN(RDA) approval to award two AFSB variants of MLP to NASSCO
November 2013	MLP AFSB ARD Rev 2.0

March 2014	Delivery of MLP 2
December 2014	Office of the Chief of Naval Operations (OPNAV) N95 clarification of roles and responsibilities between Military Detachment (MILDET) and Military Sealift Command (MSC), Force Protection responsibilities, Vertical Replenishment (VERTREP) support responsibilities.
February 2015	OPNAV N95 letter that implements modifications to meet SOF capabilities
May 2015	MLP with Core Capability Set (CCS) Operational Test Agency (OTA) Evaluation Report
June 2015	ESB 3 Delivered
April 2016	Award as sole source to NASSCO for DD&C of ESB 5
April 2016	ADM to approve acquisition of ESB 5 by ASN(RDA)
August 2016	Increase in ESB 5 LLTM Acquisition with PEO Ships endorsement dated August 26, 2016
September 2016	MLP AFSB ARD Rev 3.0
September 2016	MPF(F) ESB Circular of Requirements (COR) Rev 1.0
December 2016	Department of the Navy, Executive Summary, 2016 Force Structure Assessment (FSA) December 14, 2016.
December 2016	MLP AFSB (Variant) Net-Ready KPP
December 2016	ASN(RDA) approval to award and fund contract modification to N00024-16-C-2227
May 2017	OTA Initial Operating Test & Evaluation (IOT&E) Report Operational Test-C2 Final Report ESB
June 2017	ESB Ready for Fleet Introduction
February 2018	ESB 4 Delivered
February 2018	ESD / ESB, as ACAT II programs, delegated to PEO Ships MDA authority
April 2018	APB updated for 3 additional ships
May 2018	ESB 6-8 Acquisition Strategy Approved
May 2018	ESB 6 LLTM ADM Approved
May 2018	ESB 6 LLTM Request for Proposal (RFP) Released
June 2018	ESB 6-8 Individual Streamlined Acquisition Plan (ISTRAP) Approved
June 2018	ESB 6-8 Justification and Approval (J&A) Approved
December 2018	ESB reclassified from ACAT II to ACAT IB
August 2019	ESB 6 and ESB 7 DD&C contract awarded to NASSCO in San Diego
November 2019	ESB 5 Delivered

Threshold Breaches

APB Breaches		
Schedule		☐
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
O&S Cost		☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule

Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
MS B DAB	May 2011	May 2011	May 2011	May 2011
Detail Design and Construction Contract Award	May 2011	May 2011	May 2011	May 2011
Start of Construction	Jun 2011	Jun 2011	Jun 2011	Jun 2011
Lead Ship Delivery (Expeditionary Transfer Dock)	May 2013	May 2013	May 2013	May 2013
Lead Ship Delivery (ESB)	Jun 2015	Jun 2015	Jun 2015	Jun 2015
IOT&E Complete	Oct 2014	Oct 2014	Oct 2014	Oct 2014
IOC	Apr 2015	Apr 2015	Apr 2015	Apr 2015
FOC	Jan 2028	Jan 2028	Jan 2029	Jan 2028

Change Explanations

None

Notes

ESB 6 - Delivery May 2022, OWLD July 2023

ESB 7 - Delivery November 2023, OWLD January 2025

Acronyms and Abbreviations

IOT&E - Initial Operational Test & Evaluation
MS - Milestone
OWLD - Operation Work Limiting Date

Performance

Performance Characteristics				
SAR Baseline Production Estimate	**Current APB Production Objective/Threshold**		**Demonstrated Performance**	**Current Estimate**
Net Ready-KPP Attribute - ESB				
Support to Military Operations (99%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 1s (time to connect) Data Links Measure - 5s (time to connect) SATCOM Voice Measure - 1s (time to connect) SATCOM Data Measure - 2s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 10s (Time to send and receive information to/from external operational performer)	Support to Military Operations (99%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 1s (time to connect) Data Links Measure - 5s (time to connect) SATCOM Voice Measure - 1s (time to connect) SATCOM Data Measure - 2s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 10s (Time to send and receive information to/from external operational performer)	Support to Military Operations (90%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 5s (time to connect) Data Links Measure - 12s (time to connect) SATCOM Voice Measure - 5s (time to connect) SATCOM Data Measure - 10s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 1 min (Time to send and receive information to/from external operational performer)	08/12/2016 - Support to Military Operations (90%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 5s (time to connect) Data Links Measure - 12s (time to connect) SATCOM Voice Measure - 5s (time to connect) SATCOM Data Measure - 10s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 1 min (Time to send and receive information to/from external operational performer)	Support to Military Operations (90%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 5s (time to connect) Data Links Measure - 12s (time to connect) SATCOM Voice Measure - 5s (time to connect) SATCOM Data Measure - 10s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 1 min (Time to send and receive information to/from external operational performer)
Net-Ready: The system must support Net-Centric military operations. The system must be able to enter and be managed in the network, and exchange data in a secure manner to enhance mission effectiveness. The system must continuously provide survivable, interoperable, secure, and operationally effective information exchanges to enable a Net-Centric military capability.				
Systems must fully support execution of all operational activities and information	Systems must fully support execution of all operational activities and information	Systems must fully support execution of Joint critical operational activities and information	09/09/2013 - Systems must fully support execution of all operational activities and	Systems must fully support execution of all operational activities and information

exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and	exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and	exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication,	information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication,	exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and

non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	confidentiality, and non-repudiation, and issuance of an IATO or ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.
Capacity to support ESD operations				
Mission deck/cargo capacity: 50,000 sq. ft., elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 50,000 sq. ft. for stowage and employment of the sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 450,000 gal. to support LCAC refueling and support of operations ashore (i.e refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and	Mission deck/cargo capacity: 50,000 sq. ft., elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 50,000 sq. ft. for stowage and employment of the sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 450,000 gal. to support LCAC refueling and support of operations ashore (i.e refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and	Mission deck/cargo capacity: 25,000 sq. ft. elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 25,000 sq. ft. for stowage and employment of the sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 380,000 gal. to support LCAC refueling and support of operations ashore (i.e. refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and	09/09/2013 - Mission deck/cargo capacity: 25,000 sq. ft. elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 25,000 sq. ft. for stowage and employment of the sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 380,000 gal. to support LCAC refueling and support of operations ashore (i.e. refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both	Mission deck/cargo capacity: 25,000 sq. ft. elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 25,000 sq. ft. for stowage and employment of the sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 380,000 gal. to support LCAC refueling and support of operations ashore (i.e. refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and

mission related fresh water requirements	mission related fresh water requirements	mission related fresh water requirements	shipboard and mission related fresh water requirements	mission related fresh water requirements
Capacity to support ESB operations				
Flight Deck: Four Level I/Class 2 operating spots - Air capable ship with weapon support and defueling. MH53E or MH60 or CV22 or CH47 or AH6 equivalent with additional parking for 4 MH53E or CV22 equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded Accommodations: Berthing for a total of 351 personnel comprised of 94 MSC standard and 257 Military standard. Also, stores for 94 MSC at 30/45/90. Stores for 257 Military at 30/45/90 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: - 6 MK-105 mine sleds and 4 7-M RHIBs and 4 9-M RHIBs, and 20 TEUs Or - 4 12-M boats, and 16 TEUs and 10 ISU 90 (9'X7') with power service hook-up and tiedowns Or - 2 65-ft boats and 2 DCS-M and 16 TEUs and 10 ISU 90 (9'X7') with power service hook-up and tiedowns JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 4,000	Flight Deck: Four Level I/Class 2 operating spots - Air capable ship with weapon support and defueling. MH53E or MH60 or CV22 or CH47 or AH6 equivalent with additional parking for 4 MH53E or CV22 equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded Accommodations: Berthing for a total of 351 personnel comprised of 94 MSC standard and 257 Military standard. Also, stores for 94 MSC at 30/45/90. Stores for 257 Military at 30/45/90 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: - 6 MK-105 mine sleds and 4 7-M RHIBs and 4 9-M RHIBs, and 20 TEUs Or - 4 12-M boats, and 16 TEUs and 10 ISU 90 (9'X7') with power service hook-up and tiedowns Or - 2 65-ft boats and 2 DCS-M and 16 TEUs and 10 ISU 90 (9'X7') with power service hook-up and tiedowns JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 4,000	Flight Deck: Two Level I/Class 2 operating spots - Air capable ship with weapon support and defueling. MH53E equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded. Space, weight, and services (S/W/S) to accommodate MH60, CH47, AH6 equivalent aircraft. Accommodations: Berthing for a total of 284 personnel comprised of 34 MSC standard and 250 Military standard. Also, stores for 34 MSC at 30/45/90 (chill/frozen/ dry). Stores for 250 Military at 10/10/10 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: - 4 MK-105 mine sleds equivalents and 4 7-M RHIBs and 12 TEUs Or - 4 41ft craft and 12 TEUs S/W for objective value cargo JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 110 gal. MOGAS to support aviation and boat operations. S/W for a MOGAS 4,000	08/12/2016 -Flight Deck: Two Level I/Class 2 operating spots - Air capable ship with weapon support and defueling. MH53E equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded. Space, weight, and services (S/W/S) to accommodate MH60, CH47, AH6 equivalent aircraft. Accommodations: Berthing for a total of 284 personnel comprised of 34 MSC standard and 250 Military standard. Also, stores for 34 MSC at 30/45/90 (chill/frozen/ dry). Stores for 250 Military at 10/10/10 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: - 4 MK-105 mine sleds equivalents and 4 7-M RHIBs and 12 TEUs Or - 4 41ft craft and 12 TEUs S/W for objective value cargo JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 110 gal. MOGAS to support aviation and boat operations. S/W	Flight Deck: Two Level I/Class 2 operating spots - Air capable ship with weapon support and defueling. MH53E equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded. Space, weight, and services (S/W/S) to accommodate MH60, CH47, AH6 equivalent aircraft. Accommodations: Berthing for a total of 284 personnel comprised of 34 MSC standard and 250 Military standard. Also, stores for 34 MSC at 30/45/90 (chill/frozen/ dry). Stores for 250 Military at 10/10/10 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: - 4 MK-105 mine sleds equivalents and 4 7-M RHIBs and 12 TEUs Or - 4 41ft craft and 12 TEUs S/W for objective value cargo JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 110 gal. MOGAS to support aviation and boat operations. S/W for a MOGAS 4,000

gal. MOGAS. Potable water stowage and production capacity: Same as threshold	gal. MOGAS. Potable water stowage and production capacity: Same as threshold	gal. jettison able bladder rack system; Services for AFFF only Potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	for a MOGAS 4,000 gal. jettison able bladder rack system; Services for AFFF only Potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	gal. jettison able bladder rack system; Services for AFFF only Potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements
Force Protection				
Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships plus space and weight for point defense weapons system(s)	Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships plus space and weight for point defense weapons system(s)	Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships	09/09/2013 - Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships	Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships
Survivability - ESD				
Chemical and radiological detection system, washdown capability for the ship, personnel decontamination stations, and CBR PPE for the crew. Survival of the ship and crew through sea state 8 while maintaining best heading under power. Damage control repair lockers: Two damage control repair lockers shall	Chemical and radiological detection system, washdown capability for the ship, personnel decontamination stations, and CBR PPE for the crew. Survival of the ship and crew through sea state 8 while maintaining best heading under power. Damage control repair lockers: Two damage control repair lockers shall	S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining best heading under power Damage control repair lockers: Two	09/09/2013 - S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining best heading under power Damage control repair lockers: Two	S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining best heading under power Damage control repair lockers: Two

be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.
Survivability - ESB				
Threshold plus chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, CBR PPE for the crew Same as threshold Damage control repair lockers: Three damage control repair lockers shall be provided. The two identified in threshold plus a third locker located in the new AFSB house. The DC lockers shall be capable of stowing the required MSC damage control Allowance Equipage Lists	Threshold plus chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, CBR PPE for the crew Same as threshold Damage control repair lockers: Three damage control repair lockers shall be provided. The two identified in threshold plus a third locker located in the new AFSB house. The DC lockers shall be capable of stowing the required MSC damage control Allowance Equipage Lists	S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining best heading under power Damage control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	08/12/2016 - S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining best heading under power Damage control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining best heading under power Damage control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.
Materiel Availability. Percentage of time ships not in a maintenance availability and the ship can undertake the bulk of its wartime mission (equivalent to Ao). "Bulk of its wartime mission" for MLP is				

defined as ability to transit at 10 knots, and ability to ballast and control head in support of LCAC operations.				
84%	84%	80%	09/09/2013 - 80%	80%

Requirements Reference

CDD approved on March 11, 2013

Change Explanations

None

Acronyms and Abbreviations

AEL - Allowance Equipage Lists
AFFF - Aqueous Film Forming Foam
AFSB - Afloat Forward Sea Base
AH6 - Attack Helicopter Model 6
Ao - Operational Availability
ATO - Authority to Operate
CBR - Chemical, Biological, and Radiological
CH47 - Cargo Helicopter Model 47
CV22 - Cargo Fixed Wing Helicopter Model 22
DAA - Designated Accrediting Authority
DC - Damage Control
DCS-M - Dry Combat Submersible Medium
DoDAF - Department of Defense Architecture Framework
ESD - Expeditionary Transfer Dock
Gal - Gallon(s)
GESP - GIG Enterprise Service Profile
GIG - Global Information Grid
IA - Information Assurance
IATO - Interum Authority to Operate
IEA - Information Enterprise Architecture
IP - Internet Protocol
ISU - International Standard Unit
IT - Information Technology
JP - Jet Propellant
JTRS - Joint Tactical Radio System
LCAC - Landing Craft Air Cushion
LOS - Line Of Sight
MH53E - Multi-mission Helicopter Model 53E
MH60 - Multi-mission Helicopter Model 60
Min - Minute(s)
MK - Mark
MLP - Mobile Landing Platform
MOGAS - Mobility Gasoline
MSC - Military Sealift Command
NSE - Naval Support Elements
PPE - Personal Protective Equipment
RHIB - Rigid Hull Inflatable Boat
S - Second(s)
S/W - Space and Weight
SAASM - Selective Availability Anti-Spoofing Module
SATCOM - Satellite Communications
sq. ft. - Square Feet
TEU - Twenty Foot Equivalent Unit
TV-1 - Technical Standards Profile
USMC - Unites States Marine Corp

Track to Budget

RDT&E

Appn		BA	PE	
Navy	1319	05	0604567N	
	Project		**Name**	
	1803		Ship Contract Design/Live Fire T&E	(Sunk)
	3374		MPF (F)	(Sunk)
Navy	4557	04	0408042N	
	Project		**Name**	
	0900		MLP R&D	(Sunk)

Procurement

Appn		BA	PE	
Navy	1611	03	0204411N	
	Line Item		**Name**	
	3039		Expeditionary Sea Base (ESB)	
Navy	1611	05	0204411N	
	Line Item		**Name**	
	5110		Outfitting	(Shared)
Navy	1611	03	0204411N	
	Line Item		**Name**	
	5300		SCN ESB Completion of PY Shipbuilding	(Shared)
Navy	4557	01	0408042N	
	Line Item		**Name**	
	0401		MLP Procurement	(Sunk)
	5000		Outfitting and Post Delivery	(Sunk)

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2011 $M			BY 2011 $M	TY $M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	112.0	112.0	123.3	111.9	114.3	114.3	114.3
Procurement	4416.9	4416.9	4940.7	3827.2	5081.9	5081.9	4342.8
Flyaway	--	--	--	3630.6	--	--	4110.0
Recurring	--	--	--	3532.1	--	--	4009.9
Non Recurring	--	--	--	98.5	--	--	100.1
Support	--	--	--	196.6	--	--	232.8
Other Support	--	--	--	196.6	--	--	232.8
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4528.9	4528.9	N/A	3939.1	5196.2	5196.2	4457.1

Current APB Cost Estimate Reference

Business Case Analysis (BCA) for the procurement of Expeditionary Sea Base (ESB 6,7, & 8) dated March 28, 2018

Cost Notes

No cost estimate for the program was completed in the previous year.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	0	0	0
Procurement	8	8	7
Total	8	8	7

Quantity Notes

PB 2021 removes funding associated with ESB 8 reducing the production quantity to seven.

Cost and Funding

Funding Summary

Appropriation Summary FY 2021 President's Budget / December 2019 SAR (TY$ M)									
Appropriation	Prior	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
RDT&E	114.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	114.3
Procurement	4216.0	54.1	21.1	32.4	14.1	5.1	0.0	0.0	4342.8
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2021 Total	4330.3	54.1	21.1	32.4	14.1	5.1	0.0	0.0	4457.1
PB 2020 Total	4352.0	54.1	21.0	161.2	559.4	11.5	20.1	8.8	5188.1
Delta	-21.7	0.0	0.1	-128.8	-545.3	-6.4	-20.1	-8.8	-731.0

Quantity Summary FY 2021 President's Budget / December 2019 SAR (TY$ M)										
Quantity	Undistributed	Prior	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	7	0	0	0	0	0	0	0	7
PB 2021 Total	0	7	0	0	0	0	0	0	0	7
PB 2020 Total	0	7	0	0	0	1	0	0	0	8
Delta	0	0	0	0	0	-1	0	0	0	-1

Cost and Funding

Annual Funding By Appropriation

Annual Funding 1319 | RDT&E | Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2012	--	--	--	--	--	--	8.0
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	--
2015	--	--	--	--	--	--	--
2016	--	--	--	--	--	--	--
2017	--	--	--	--	--	--	0.7
2018	--	--	--	--	--	--	0.5
Subtotal	--	--	--	--	--	--	9.2

Annual Funding 1319 | RDT&E | Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2011 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2012	--	--	--	--	--	--	7.7
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	--
2015	--	--	--	--	--	--	--
2016	--	--	--	--	--	--	--
2017	--	--	--	--	--	--	0.6
2018	--	--	--	--	--	--	0.4
Subtotal	--	--	--	--	--	--	8.7

Annual Funding 4557 | RDT&E | National Defense Sealift Fund, Navy							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2008	--	--	--	--	--	--	18.1
2009	--	--	--	--	--	--	12.9
2010	--	--	--	--	--	--	32.7
2011	--	--	--	--	--	--	3.5
2012	--	--	--	--	--	--	4.9
2013	--	--	--	--	--	--	4.0
2014	--	--	--	--	--	--	18.7
2015	--	--	--	--	--	--	8.5
2016	--	--	--	--	--	--	1.8
Subtotal	--	--	--	--	--	--	105.1

Annual Funding 4557 | RDT&E | National Defense Sealift Fund, Navy							
Fiscal Year	Quantity	BY 2011 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2008	--	--	--	--	--	--	18.6
2009	--	--	--	--	--	--	13.1
2010	--	--	--	--	--	--	32.7
2011	--	--	--	--	--	--	3.4
2012	--	--	--	--	--	--	4.7
2013	--	--	--	--	--	--	3.8
2014	--	--	--	--	--	--	17.5
2015	--	--	--	--	--	--	7.8
2016	--	--	--	--	--	--	1.6
Subtotal	--	--	--	--	--	--	103.2

Annual Funding 1611 | Procurement | Shipbuilding and Conversion, Navy							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2014	1	603.3	--	--	603.3	--	603.3
2015	--	--	--	--	--	--	--
2016	1	635.0	--	--	635.0	4.0	639.0
2017	--	--	--	--	--	11.4	11.4
2018	1	635.0	--	--	635.0	14.2	649.2
2019	1	647.0	--	--	647.0	10.1	657.1
2020	--	38.0	--	--	38.0	16.1	54.1
2021	--	--	--	--	--	21.1	21.1
2022	--	--	--	--	--	32.4	32.4
2023	--	--	--	--	--	14.1	14.1
2024	--	--	--	--	--	5.1	5.1
Subtotal	4	2558.3	--	--	2558.3	128.5	2686.8

Annual Funding 1611 | Procurement | Shipbuilding and Conversion, Navy							
Fiscal Year	Quantity	BY 2011 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2014	1	529.9	--	--	529.9	--	529.9
2015	--	--	--	--	--	--	--
2016	1	535.0	--	--	535.0	3.4	538.4
2017	--	--	--	--	--	9.4	9.4
2018	1	513.4	--	--	513.4	11.5	524.9
2019	1	512.9	--	--	512.9	8.0	520.9
2020	--	29.5	--	--	29.5	12.5	42.0
2021	--	--	--	--	--	16.1	16.1
2022	--	--	--	--	--	24.2	24.2
2023	--	--	--	--	--	10.3	10.3
2024	--	--	--	--	--	3.7	3.7
Subtotal	4	2120.7	--	--	2120.7	99.1	2219.8

Cost Quantity Information 1611 | Procurement | Shipbuilding and Conversion, Navy		
Fiscal Year	**Quantity**	**End Item Recurring Flyaway (Aligned With Quantity) BY 2011 $M**
2014	1	529.9
2015	--	--
2016	1	564.5
2017	--	--
2018	1	513.4
2019	1	512.9
2020	--	--
2021	--	--
2022	--	--
2023	--	--
2024	--	--
Subtotal	4	2120.7

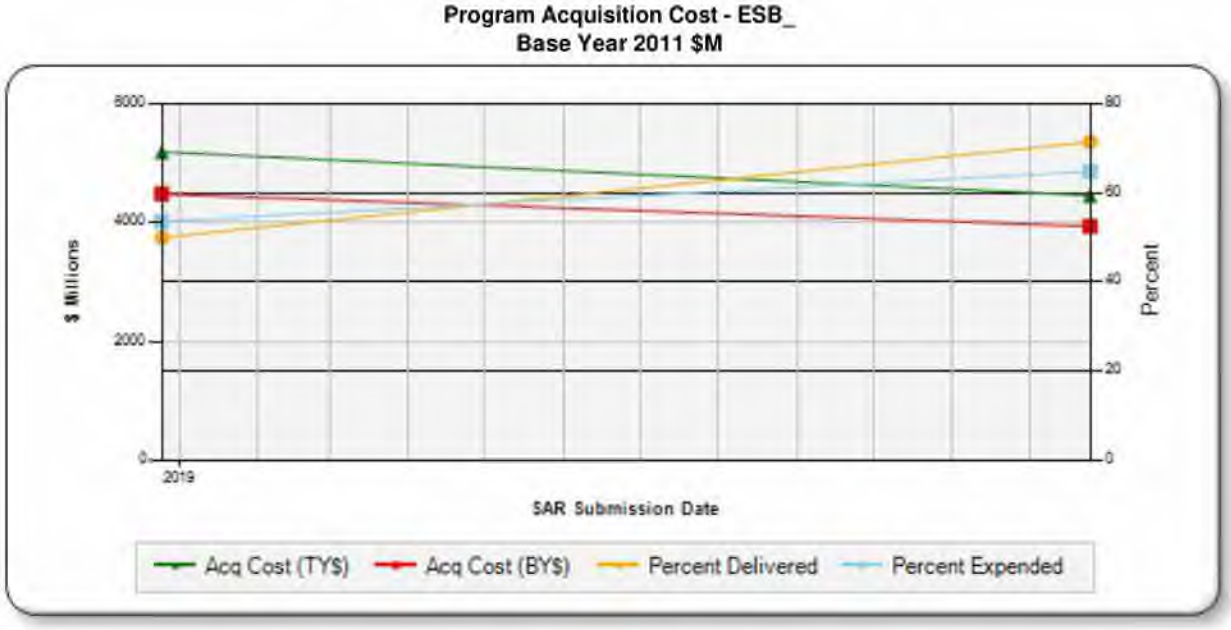
Annual Funding 4557 | Procurement | National Defense Sealift Fund, Navy							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2010	--	82.6	--	37.1	119.7	--	119.7
2011	2	825.9	--	49.0	874.9	--	874.9
2012	1	372.0	--	14.0	386.0	6.2	392.2
2013	--	148.5	--	--	148.5	32.0	180.5
2014	--	22.6	--	--	22.6	33.3	55.9
2015	--	--	--	--	--	17.3	17.3
2016	--	--	--	--	--	15.5	15.5
Subtotal	3	1451.6	--	100.1	1551.7	104.3	1656.0

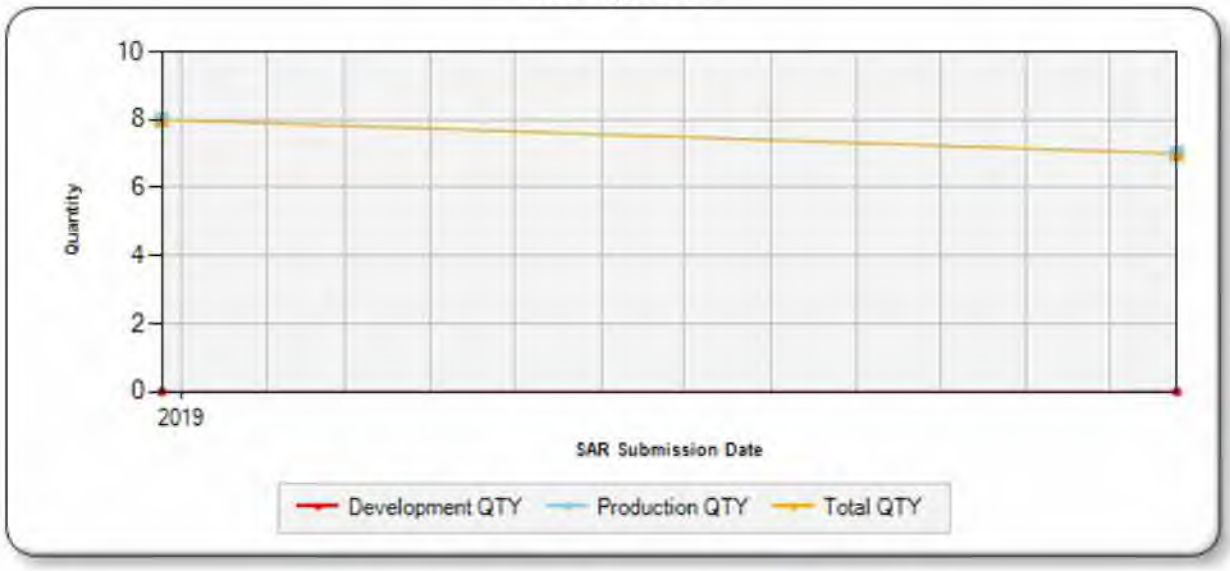
Annual Funding 4557 | Procurement | National Defense Sealift Fund, Navy							
Fiscal Year	Quantity	BY 2011 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2010	--	82.7	--	37.1	119.8	--	119.8
2011	2	808.3	--	47.9	856.2	--	856.2
2012	1	358.3	--	13.5	371.8	6.0	377.8
2013	--	141.0	--	--	141.0	30.3	171.3
2014	--	21.1	--	--	21.1	31.2	52.3
2015	--	--	--	--	--	16.0	16.0
2016	--	--	--	--	--	14.0	14.0
Subtotal	3	1411.4	--	98.5	1509.9	97.5	1607.4

Cost Quantity Information 4557 | Procurement | National Defense Sealift Fund, Navy		
Fiscal Year	**Quantity**	**End Item Recurring Flyaway (Aligned With Quantity) BY 2011 $M**
2010	--	--
2011	2	891.0
2012	1	520.4
2013	--	--
2014	--	--
2015	--	--
2016	--	--
Subtotal	3	1411.4

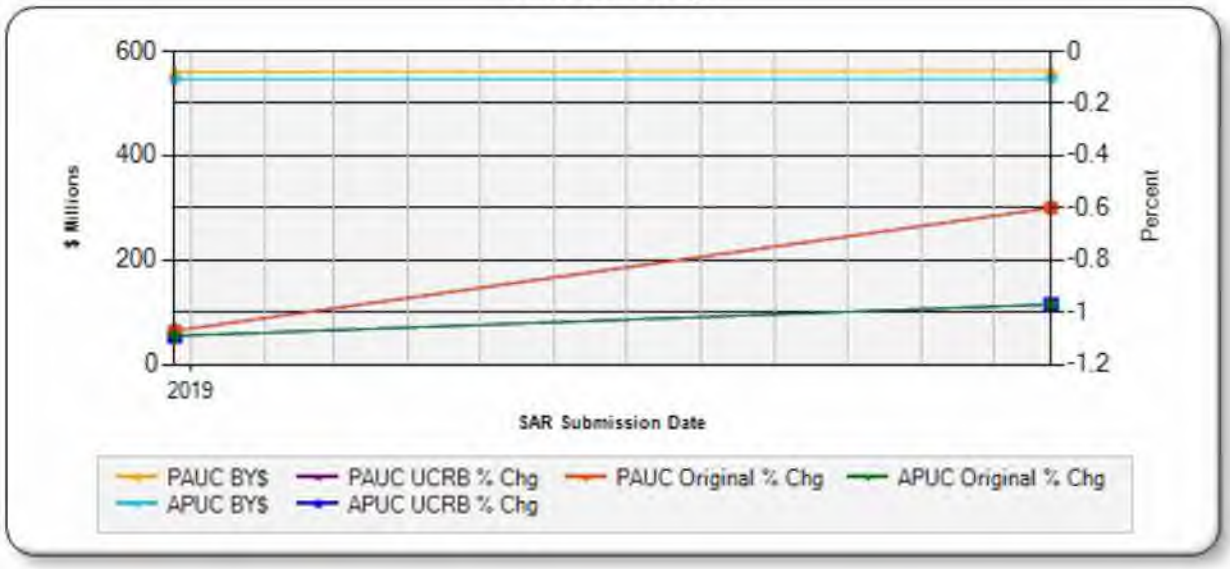
Charts

ESB_ first began SAR reporting in December 2018





Unit Cost - ESB_
Base Year 2011 $M



Risks

Significant Schedule and Technical Risks

Significant Schedule and Technical Risks	
	Current Estimate (December 2019)
1.	ESB 6 And Follow (AF) Cybersecurity - ESB 6 is the first ship in the ESB class to be subject to enhanced cybersecurity requirements. NASSCO has been awarded a contract modification to conduct a study to assess what changes must be made to the ship baseline to bring it into compliance. The end result of the analysis will be the development of a Contract Mod Request (CMR) to NASSCO to implement the identified changes. Precise scoping of the changes that are required to the existing ship baseline will be key to mitigating both cost and schedule risk but has a larger near-term impact on preserving schedule. Cost will remain largely unknown until after receipt of a shipbuilder implementation and cost proposal, and is in part dependent on successful shipbuilder negotiations with their vendors for Vendor Furnished Information (VFI). Status: NASSCO has provided approximately 25% of the inputs to cybersecurity technical baseline component list and architecture requirements (system network topology diagram). Once data is complete, CMR package will be finalized for Change Control Board (CCB) Planned Completion: February 28, 2020
2.	ESB Increased Personnel Requirement - N95 sponsor has directed Program Management Ships (PMS) 385 to investigate impacts of adding 100 Military Crew (MILCREW) to current ESB requirement of 250 MILCREW (including 150 embarked forces and 100 permanent crew). Military Sealift Command (MSC) also has requested investigation of adding 4 Civilian Mariners (CIVMARs) to aft house. A study is being conducted under PMS 385 direction to evaluate these impacts and propose design changes for development of a CMR to NASSCO for changes in-line to ESB 7. There may be direction coming that would push implementation up to ESB 5 (post delivery backfit) or ESB 6 in-line (or post delivery backfit) that could have significant cost and schedule implications for the program. Current Status: CMR for Phase 1 (services assessment and increase) was approved and RFP was provided to NASSCO December 29, 2019. NASSCO development of technical and cost proposal in response to RFP anticipated by mid February 2020. Planned completion: March 31, 2020

Risks

Risk and Sensitivity Analysis

Risks and Sensitivity Analysis	
Current Baseline Estimate (February 2019)	
1.	Current baseline estimate equals original baseline estimate. The Acquisition Schedule risk is the main driver of risk in the ESB cost estimate.
Original Baseline Estimate (February 2019)	
1.	ESB 6 - 8 Acquisition Schedule Risk
Revised Original Estimate (N/A)	
None	
Current Procurement Cost (December 2019)	
1.	ESB 6 AF Cybersecurity and ESB Increased Personnel Requirement

Low Rate Initial Production

There is no LRIP for this program.

Foreign Military Sales

None

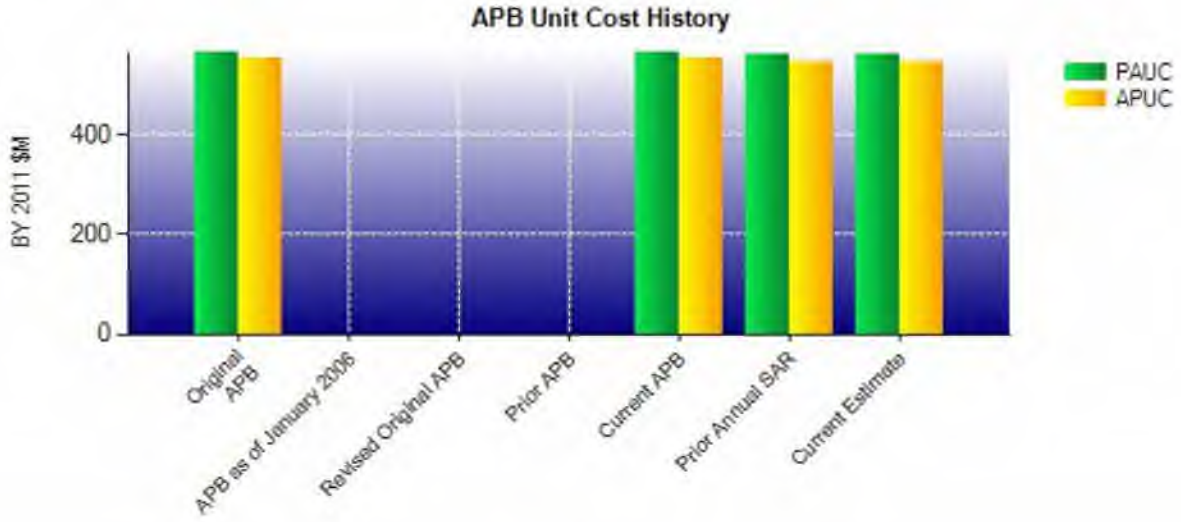
Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2011 $M Current UCR Baseline (Feb 2019 APB)	BY 2011 $M Current Estimate (Dec 2019 SAR)	% Change
Program Acquisition Unit Cost			
Cost	4528.9	3939.1	
Quantity	8	7	
Unit Cost	566.112	562.729	-0.60
Average Procurement Unit Cost			
Cost	4416.9	3827.2	
Quantity	8	7	
Unit Cost	552.112	546.743	-0.97

Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2011 $M Original UCR Baseline (Feb 2019 APB)	BY 2011 $M Current Estimate (Dec 2019 SAR)	% Change
Program Acquisition Unit Cost			
Cost	4528.9	3939.1	
Quantity	8	7	
Unit Cost	566.112	562.729	-0.60
Average Procurement Unit Cost			
Cost	4416.9	3827.2	
Quantity	8	7	
Unit Cost	552.112	546.743	-0.97



APB Unit Cost History					
Item	Date	BY 2011 $M		TY $M	
		PAUC	APUC	PAUC	APUC
Original APB	Feb 2019	566.112	552.112	649.525	635.238
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	Feb 2019	566.112	552.112	649.525	635.238
Prior Annual SAR	Dec 2018	560.062	546.075	648.512	634.225
Current Estimate	Dec 2019	562.729	546.743	636.729	620.400

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
649.525	7.043	-12.553	8.714	0.000	-1.500	0.000	-14.500	-12.796	636.729

Current SAR Baseline to Current Estimate (TY $M)									
Initial APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
635.238	7.029	-14.595	8.714	0.000	-1.486	0.000	-14.500	-14.838	620.400

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	N/A	May 2011	May 2011
Milestone C	N/A	N/A	N/A	N/A
IOC	N/A	N/A	Apr 2015	Apr 2015
Total Cost (TY $M)	N/A	N/A	5196.2	4457.1
Total Quantity	N/A	N/A	8	7
PAUC	N/A	N/A	649.525	636.729

Cost Variance

Summary TY $M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	114.3	5081.9	--	5196.2
Previous Changes				
Economic	+0.1	+44.7	--	+44.8
Quantity	--	--	--	--
Schedule	--	+14.4	--	+14.4
Engineering	--	--	--	--
Estimating	-0.1	-20.6	--	-20.7
Other	--	--	--	--
Support	--	-46.6	--	-46.6
Subtotal	--	-8.1	--	-8.1
Current Changes				
Economic	--	+4.5	--	+4.5
Quantity	--	-737.4	--	-737.4
Schedule	--	+46.6	--	+46.6
Engineering	--	--	--	--
Estimating	--	+10.2	--	+10.2
Other	--	--	--	--
Support	--	-54.9	--	-54.9
Subtotal	--	-731.0	--	-731.0
Total Changes	--	-739.1	--	-739.1
Current Estimate	114.3	4342.8	--	4457.1

Summary BY 2011 $M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	112.0	4416.9	--	4528.9
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-0.1	-13.6	--	-13.7
Other	--	--	--	--
Support	--	-34.7	--	-34.7
Subtotal	-0.1	-48.3	--	-48.4
Current Changes				
Economic	--	--	--	--
Quantity	--	-540.0	--	-540.0
Schedule	--	+32.3	--	+32.3
Engineering	--	--	--	--
Estimating	--	+7.2	--	+7.2
Other	--	--	--	--
Support	--	-40.9	--	-40.9
Subtotal	--	-541.4	--	-541.4
Total Changes	-0.1	-589.7	--	-589.8
Current Estimate	111.9	3827.2	--	3939.1

Previous Estimate: December 2018

Procurement	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+4.5
Total Quantity variance resulting from the removal of ESB 8 as well as refined requirements for ESB 4, ESB 5, ESB 6, and ESB 7. (Subtotal)	-533.5	-728.5
Adjustment resulting from a decrease of 1 ESB from 8 to 7 (Quantity)	(-540.0)	(-737.4)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-3.2)	(-4.4)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(+9.7)	(+13.3)
Shortened procurement buy profile associated with the removal of ESB 8 funds from FY 2022 and FY 2023. (Schedule) (QR)	+35.5	+51.0
Revised estimate to reflect updated Outfitting and Post Delivery requirements for ESB 4, ESB 5, ESB 6 and ESB 7. Additionally reflects the removal of OF/PD associated with ESB 8 (Support) (QR)	-40.7	-54.7
Adjustment for current and prior escalation. (Estimating)	-2.4	-2.9
Adjustment for current and prior escalation (Estimating)	-0.1	-0.2
Adjustment for current and prior escalation. (Support)	-0.2	-0.2
Procurement Subtotal	-541.4	-731.0

(QR) Quantity Related

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: Expeditionary Sea Base - ESB 6
Contractor: NASSCO
Contractor Location: 2798 Harbor Drive
San Diego, CA 92113
Contract Number: N00024-19-C-2235
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: August 23, 2019
Definitization Date: August 23, 2019

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
N/A	N/A	N/A	N/A	N/A	N/A		

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FPIF) contract.

Notes

In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is ~~For Official Use Only.~~

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	7	5	7	71.43%
Total Program Quantity Delivered	7	5	7	71.43%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	4457.1	Years Appropriated	13
Expended to Date	2888.5	Percent Years Appropriated	76.47%
Percent Expended	64.81%	Appropriated to Date	4384.4
Total Funding Years	17	Percent Appropriated	98.37%

The above data is current as of February 10, 2020.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	January 01, 2020
Source of Estimate:	POE
Quantity to Sustain:	7
Unit of Measure:	Ship
Service Life per Unit:	40.00 Years
Fiscal Years in Service:	FY 2013 - FY 2065

The program has updated the O&S estimate based upon differences associated with ESD and ESB missions and accruals from actual deployments.

Sustainment Strategy

The Military Sealift Command (MSC) maintains the ESDs utilizing established sustainment practices and maintenance philosophy which reflect the ship's commercial design and construction, utilization of commercial equipment and MSC's two-level maintenance philosophy consisting of shipboard and depot level maintenance. Sustainment efforts follow commercial merchant service practices that emphasize maximizing cost effectiveness and ship availability. Operating Tempo (OPTEMPO) was assumed 10% of In Fleet Time (IFT) steaming underway and 90% of IFT steaming not underway.

MSC and US Navy act as a joint Navy Type Command (TYCOM) and the hybrid crew, based off agreed upon Roles and Responsibilities, maintains the ESBs utilizing established sustainment practices and maintenance philosophy which reflect the ship's commercial design and construction, utilization of commercial equipment and MSC's two-level maintenance philosophy for Hull, Mechanical & Engineering (HM&E) equipment and the Navy's maintenance philosophy for associated Mission Support Equipment. Logistics support includes the use of the Navy and DoD supply systems as well as commercial distribution networks to reduce life cycle cost. OPTEMPO was assumed 60% of IFT steaming underway and 40% of IFT steaming not underway.

Antecedent Information

The ESD and ESB ships represent new capabilities from their original intent and therefore they are without a true antecedent system.

Annual O&S Costs BY2011 $M		
Cost Element	**ESB_ Average Annual Cost Per Ship**	**No Antecedent**
Unit-Level Manpower	14.345	--
Unit Operations	9.932	--
Maintenance	8.101	--
Sustaining Support	1.598	--
Continuing System Improvements	0.576	--
Indirect Support	3.243	--
Other	--	--
Total	37.795	--

Item	Total O&S Cost $M			
	ESB_			No Antecedent
	Current Production APB Objective/Threshold		Current Estimate	
Base Year	9649.9	10614.9	10582.5	N/A
Then Year	15958.7	N/A	17501.0	N/A

Disposal Cost is included in the Operating and Support Cost of the current APB objective and threshold for this program.

Equation to Translate Annual Cost to Total Cost

Program O&S Cost developed by: Average cost of an ESD ($30.4), multiplied by the number of ESD's in the class (2), plus the average cost of an ESB ($40.7), multiplied by the number of ESB's in the class (5), and then dividing the two sums by total number of ships in class (7) which equals $37.8 per year, per ship. $37.8 multiplied by the amount of ships in class (7), multiplied by the amount of years the ship will be in service (40), equals the expected O&S cost for the class over 40 years: $10,582.5M

($30.4*2)+($40.7*5)/7=$37.8

$37.8*7*40=$10,582.5M

O&S Cost Variance		
Category	**BY 2011 $M**	**Change Explanations**
Prior SAR Total O&S Estimates - Dec 2018 SAR	9608.0	
Programmatic/Planning Factors	974.5	Cost variance based upon differences associated with ESD and ESB missions to include increased manpower and refined unit operations requirements. Total requirements take into account the reduction of 1 ESB for a total production profile of 7.
Cost Estimating Methodology	0.0	
Cost Data Update	0.0	
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
Total Changes	974.5	
Current Estimate	10582.5	

Disposal Estimate Details

Date of Estimate:	January 01, 2020
Source of Estimate:	POE
Disposal/Demilitarization Total Cost (BY 2011 $M):	6.0

Disposal costs account for the inactivation cost and the net disposal (scrap) cost. It is assumed that the ESDs and ESBs will not become a remobilization asset, therefore no costs are set aside for that effort once the ship is decommissioned and taken out of service.